WHAT IS CLAIMED IS:

1. A cutting tool for cutting a workpiece comprising:

a tool body having an outer surface

thereon and a central axis therein and including at
least a first and second spiraling flute in the outer
surface, each flute including a plurality of inserts
secured therein to define an axial rake angle, wherein
the axial rake angle of the inserts varies between

flutes and within each flute.

- 2. The cutting tool of claim 1 wherein all of the inserts on the entire tool body are identical.
- 3. The cutting tool of claim 1 wherein the tool body includes three spiraling flutes, wherein each spiraling flute has a first, second and third axial rake angle.
 - 4. The cutting tool of claim 3 wherein all of the inserts on the entire tool body are identical.
- 5. The cutting tool of claim 4 wherein each insert has an actual length longer than the cutting edge, and the actual lengths of adjacent inserts in any flute do not circumferentially overlap.
- 6. The cutting tool of claim 1 wherein the inserts each have a cutting edge and the cutting edges on adjacent inserts in any flute do not circumferentially overlap such that cutting using the cutting tool having at least two flutes with differing axial rake angles results in an all effective cut.
- 7. The cutting tool of claim 1 wherein the inserts each have a cutting edge and the cutting edges on inserts with differing axial rake angles have differing cutting edge lengths.

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Sub Ma7 8. A cutting tool comprising:

a tool body with a central axis therein and an outer surface thereon, the tool body including at least a first and second spiraling flute in the outer surface, each spiraling/flute including a plurality of inserts secured therein, the inserts in all of the flutes being identical, and wherein the inserts in the first flute are secured so as to be of a first effective axial length while the inserts in the second flute are secured so as to be of a second effective axial length different from the first effective axial length, the inserts each have a cutting edge and the cutting edges on adjacent inserts in any flute do not circumferentially overlap, wherein each insert has an actual length longer than the cutting edge, and the actual lengths of adjacent inserts in any flute circumferentially overlap.

- 9. The cutting tool of claim 8 wherein the inserts in the first flute are each secured at a first axial rake angle while the inserts in the second flute are each secured at a second axial rake angle different from the first axial rake angle.
- 10. The cutting tool of claim 8 wherein all of the inserts on the entire tool body are identical.
- 11. The cutting tool of claim 8 wherein the tool body includes four spiraling flutes, two of which have a first axial rake angle and two of which have a second axial rake angle.
- 12. The cutting tool of claim 8 wherein all 30 of the inserts on the entire tool body are identical.
 - 13. The cutting tool of claim 12 wherein each insert has an actual length longer than the cutting edge, and the actual lengths of adjacent inserts in any flute do not circumferentially overlap.



The cutting tool of claim 8 wherein the inserts each have a cutting edge and the cutting edges on adjacent inserts in any flute do not circumferentially overlap such that cutting using the cutting tool having inserts with differing effective axial lengths results in an all effective cut.